

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

IN THE CLAIMS:

Claims 1-114 (Cancelled).

115. (Currently amended) In a method of transmitting a message from a sender to a ~~destination address recipient~~ through a server displaced from the ~~destination address recipient~~ and of authenticating the message, the steps at the server of:

receiving the message from the sender,

transmitting the message to the ~~destination address recipient~~,

storing at the server at least a portion of a mail transport protocol dialog generated by the server and the recipient during the transmission of the message between the server and the ~~destination address recipient~~,

receiving at the server an indication from the ~~destination address recipient~~ that the message has been received at the ~~destination address recipient~~ from the server,

maintaining the message and additionally creating a digital signature of the message for later authentication of the message by the server, and

transmitting to the sender the message, the digital signature of the message, and the at least a portion of the mail transport dialog before any authentication of the message for storage by the sender.

116. (Previously presented) In a method as set forth in claim 115, the step at the server of:

discarding the message and the digital signature of the message after the transmission of the message and the digital signature of the message to the sender and before any authentication of the message.

117. (Previously presented) In a method as set forth in claim 116, the steps at the server of:

receiving from the sender a copy of the message and the digital signature of the message before any authentication of the message, but after the transmission of the message to the sender,

generating digital fingerprints of the copy of the message from the sender,
comparing the generated digital fingerprints to the digital signature of the message, and

authenticating the message on the basis of the results of the comparison.

118. (Previously presented) In a method as set forth in claim 116, the steps at the server of:

providing at the server an attachment including an identity of the sender and an identity and an address of the server and an identity and a destination address of the recipient
and additionally providing a digital signature of the attachment and
transmitting to the sender the attachment and the digital signature of the attachment, at the same time as the transmission of the message, and the digital signature of the message, to the sender.

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the ~~destination address recipient~~,
maintaining the attachment and additionally providing a digital signature of the attachment and
transmitting to the sender the attachment, and the digital signature of the attachment for storage by the sender.

120. (Previously presented) In a method as set forth in claim 119, the steps at the server of:

receiving from the sender copies of the message and the attachment and the digital signature of the message and the attachment,
generating digital fingerprints of the message,
comparing the digital fingerprints of the message to the digital signature of the message, and

comparing the digital fingerprints of the attachment to the digital signature of the attachment, to authenticate the message and the attachment.

121. (Previously presented) In a method as set forth in claim 116, the steps at the server of:

receiving the message, and the verification of the message, at the server from the sender, and

authenticating the message at the server on the basis of the message, and the digital signature of the message, received by the server from the sender.

Claims 122-229 (Cancelled).

230. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

creating an electronic attachment at the second server including the identity and address of the sender and the identity and address of the second server and the identity and address of the destination server and at least a portion of a mail transport protocol dialog generated by the second server and the destination server during the transmission of the message between the second server and the destination server, and

transmitting the electronic attachment from the second server to the sender after the transmission of the message from the second server to the destination server but before any authentication of the message by the second server.

231. (Previously presented) In a method as set forth in claim 230 wherein the at least a portion of the mail transport protocol dialog of the electronic attachment transmitted from the second server to the sender includes the address and the identity of intermediate stations receiving the electronic attachment in the transmission of the electronic attachment from the second server to the destination server.

232. (Previously presented) In a method as set forth in claim 230, the steps at the second server of:

providing a digital signature of the electronic attachment at the second server and

transmitting the digital signature of the attachment from the second server to the sender, at the time of transmitting the attachment from the second server to the sender.

Claim 233 (Canceled)

234. (Previously presented) In a method as set forth in claim 232, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

Claim 235 (Canceled)

236. (Previously presented) In a method as set forth in claim 232, the steps at the second server of:

receiving at the second server the attachment, and the digital signature of the attachment, from the sender,

providing at the second server digital fingerprints of the attachment,

comparing the digital fingerprints and the digital signature of the attachment to authenticate the attachment.

Claim 237 (Canceled)

Claims 238-285 (Cancelled)

286. (Currently amended) In a method as set forth in claim 116, including the steps at the server of:

receiving from the sender a copy of the message and the digital signature of the message after the transmission of the message to the destination address recipient but before any authentication of the message, and

processing the message and the digital signature of the message to determine the authentication of the message.

287. (Currently amended) In a method as set forth in claim 115, the steps of:
transmitting the at least a portion of the mail transport protocol dialog to a storage
means for subsequent production as proof of delivery of the message to the ~~destination address~~
recipient.

288. (Currently amended) In a method as set forth in claim 287 wherein
the mail transport protocol dialog is a SMTP or ESMTP dialog and includes data exchanged
between the server and the ~~destination address~~ recipient relating to the message.

289. (Currently amended) In a method as set forth in claim 287 wherein
the mail transport protocol dialog includes data in the dialog between the server and the
~~destination address~~ recipient relating to the message including the identification of the server and
the ~~destination address~~ recipient and the identification of the message and an acknowledgement
of the receipt of the message by the ~~destination address~~ recipient.

290. (Currently amended) In a method as set forth in claim 288 wherein the data
exchanged in the dialog between the server and the ~~destination address~~ recipient relating to the
message is used to establish that the message has been received at the ~~destination address~~
recipient.

291. (Previously presented) In a method as set forth in claim 290, wherein the
authentication is provided as follows:

generating at the server a digital fingerprint of the message received by the server
from the sender, and

comparing the digital fingerprints generated at the server to the digital signature
of the message.

292. (Previously presented) In a method as set forth in claim 230, the steps of:
storing the at least a portion of the mail transport protocol dialog between the
second server and the destination server relating to the message for subsequent proof of delivery
of the message by the second server to the destination server.

293. (Previously presented) In a method as set forth in claim 291 wherein

the mail transport protocol dialog between the second server and the destination server includes matter relating to the identities of the second server and the destination server and relating to the message.

294. (Previously presented) In a method as set forth in claim 292 wherein the at least a portion of the mail transport protocol dialog between the second server and the destination server is included in the electronic attachment.

295. (Previously presented) In a method as set forth in claim 293 wherein the mail transport protocol dialog between the second server and the destination server includes an acknowledgement by the destination server to the second server that it has received the message.

296. (Previously presented) In a method as set forth in claim 231, wherein
the at least a portion of the mail transport protocol dialog includes data exchanged between the second server and the destination server relating to the message during the transmission of the message between the second server and the destination server through stages between the second server and the destination server, and further includes the step of
storing the at least a portion of the dialog between the second server and the destination server relating to the message for subsequent proof of delivery of the message by the second server to the destination server.

297. (Previously presented) In a method as set forth in claim 234 including the steps of:

storing the at least a portion of the mail transport protocol dialog between the second server and the destination server for subsequent proof of the delivery of the message by the second server to the destination server, wherein

the dialog is an SMTP or ESMTP protocol dialog, and wherein

the dialog between the second server and the destination server includes matter relating to the identities of the second server and the destination server and relating to the message and wherein

the dialog between the second server and the destination server is included in the electronic attachment.

Claims 298-300 (Cancelled).